



COUNTY OF SAN LUIS OBISPO

March 2002

# 2001 Water Quality Report

## Cayucos

### To our customers

*The County of San Luis Obispo is pleased to present this annual report describing the quality of your drinking water. We sincerely hope this report gives you the information you seek and have a right to know.*

### What is the source of my drinking water?

Your water comes from Whale Rock Reservoir and a groundwater well located adjacent to Cayucos on the east side of Highway One. Whale Rock Reservoir has a total capacity of 40,660 acre-feet and is managed by the Whale Rock Commission (City of San Luis Obispo, California Men's Colony, and Cal Poly). No swimming or other body contact sports are allowed on the reservoir in order to minimize viral contamination from human contact. Water from the reservoir is piped downstream to the Cayucos Water Treatment Plant (WTP) where it is filtered and chlorinated prior to distribution.

Treated water is distributed to the Cayucos Area Water Organization (CAWO) which consists of three water agencies: Paso Robles Beach Water Association (PRBWA), Morro Rock Mutual Water Company (MRMWC), and the County of San Luis Obispo County Service Area 10A (CSA-10A). These three agencies have a combined entitlement of 582 acre-feet per year of Whale Rock Reservoir water and groundwater.

The three water agencies monitor their water wells on a regular basis for regulated and unregulated chemicals and evaluate the findings relative to the California Drinking Water Primary and Secondary Maximum Contaminant Level (MCL) standards. These monitoring results are then submitted to the California Department of Health Services.

A source assessment of five standby wells was conducted in July and August 2001 by Boyle Engineering Corporation with assistance from the CAWO. The wells were CSA 10A Wells No. 2 and 3, PRBWA Well No. 1, and MRMWC Wells No. 1 and 3. The assessment included a review of water system information, meetings with water system staff, global positioning system mapping, and field reconnaissance. The field surveys were conducted to locate and assess the vulnerability of the wells to possible chemical contamination. The source assessment concluded that the wells were most vulnerable to the following activities for which no associated contaminant has been detected in the water supply: Sewer collection system, low-density septic systems, agricultural drainage and an agricultural well.

A copy of the complete assessment is available at:

Department of Health Services  
1180 Eugenia Place, Suite 200  
Carpinteria, California 93013

or  
County of San Luis Obispo  
Department of Public Works  
County Government Center, Room 207  
San Luis Obispo, CA 93408

You may request a summary of the assessment be sent to you by contacting Kurt Souza, District Engineer, Santa Barbara District at (805) 566-1326, or John Beaton, Water Quality Manager, County of San Luis Obispo at (805) 781-5111.

### FUTURE IMPROVEMENTS

This year, the District will be installing an 8" pipeline designed to replace an existing 8" and 4" distribution system waterline. The existing waterline runs adjacent to a local drainage course and is vulnerable to stream bank erosion. The new pipeline has been moved away from the vicinity of the drainage course which will preclude further waterline breaks due to erosion. The proposed project will provide increased reliability to the District's customers in the form of adequate waterline capacity, increased fire flow, and minimal emergency shutdowns.

**TERMS USED IN THIS REPORT:**

**Maximum Contaminant Level Goal (MCLG) and Public Health Goal (PHG)** - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the Federal Environmental Protection Agency and PHGs are set by the California Environmental Protection Agency.

**Maximum Contaminant Level (MCL)** - The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**Primary Drinking Water Standards (PDWS)** - MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Secondary Drinking Water Standards (SDWS)** - MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

**Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.

**Regulatory Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

**NS (No Standard)** - Contaminant for which there is no established MCL.

**ND (Not Detected)** - Contaminant is not detectable at testing limit.

**CU** - color units

**LI** - Langelier Index; Noncorrosive = Any positive value, Corrosive = Any negative value

**micromhos/cm** - micromhos per centimeter

**NTU** - Nephelometric Turbidity Unit

**pCi/L** - picoCuries per liter (a measure of radioactivity)

**ppm** - parts per million, or milligrams per liter (mg/L)

**ppb** - parts per billion, or micrograms per liter (µg/L)

**TON** - Threshold Odor Number



The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Contaminants that may be present in source water include:**

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- *Radioactive contaminants* which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the California Department of Health Services (DHS) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.



Tables 1,2,3,4,and 5 list all of the drinking water contaminants that were detected from January 2001 through December 2001, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The Department requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, may be more than one year old.

**Table 1 - Treatment of surface water sources**

Turbidity Performance Standard - Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Turbidity of filtered water must: 1. Be less than or equal to 0.5 NTU in 95% of measurements in a month. 2. Not exceed 1.0 NTU for more than eight consecutive hours. 3. Not exceed 5 NTU at any time.	<b>Treatment Technique for Cayucos WTP</b>
Lowest monthly percentage of samples that met Turbidity Performance Standard 1.	100%
Highest single turbidity measurement during the year.	0.12
The number of violations of any surface water treatment requirement.	0

Table 2 - Detection of Contaminants with a <u>Primary</u> Drinking Water Standard			Cayucos		
Contaminant (reporting units)	MCL	PHG (MCLG)	Range	Average	Potential Source of Contamination
Aluminum (ppb)	1000	600	170—390	300	Erosion of natural deposits; residue from some surface water treatment processes
Fluoride (ppb)	2000	1000	270	270	Erosion of natural deposits
Arsenic (ppb)	50	----	2	2	Erosion of natural deposits; runoff from orchards
Gross Alpha Particle Activity (pCi/L)	15	----	ND—2.50	1.3	Erosion of natural deposits
Nitrate as NO <sub>3</sub> (ppm)	45	45	ND—2.3	1.1	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Table 3 - Lead and Copper		Cayucos Homes					
Contaminant (reporting units)	AL	MCLG	Number of Samples Collected	Sample Date	90th Percentile Level Detected	Number of Sites Found Above the AL	Potential Source of Contamination
Lead (ppb)	15	2	10	September 1999	ND	0	Internal corrosion of household water plumbing systems
Copper (ppb)	1300	170	10	September 1999	700	0	Internal corrosion of household water plumbing systems

Table 4 - Detection of Contaminants with a <u>Secondary</u> Drinking Water Standard		Cayucos		
Contaminant (reporting units)	MCL	Range	Average	Potential Source of Contamination
Aluminum (ppb)	200	170—390	300*	Erosion of natural deposits; residue from some surface water treatment processes
Chloride (ppm)	500		26	Runoff/leaching from natural deposits; seawater influence
Color (CU)	15		1	Naturally occurring organic materials
Corrosivity (LI)	Noncorrosive		0.8	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Odor - Threshold (TON)	3		1.2	Naturally occurring organic materials
Specific Conductance (micromhos/cm)	1600		540	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	500		67	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	5		0.10	Soil Runoff
Total Dissolved Solids (ppm)	1000		340	Runoff/leaching from natural deposits

Table 5 - Detection of Contaminants <u>without</u> a Drinking Water Standard		Cayucos WTP		
Contaminant (reporting units)		Range	Average	Potential Source of Contamination
Alkalinity as CaCO <sub>3</sub> (ppm)			230	Runoff/leaching from natural deposits; seawater influence
Calcium (ppm)			46	Runoff/leaching from natural deposits; seawater influence
Hardness (ppm)			260	Generally found in ground and surface water
Magnesium (ppm)			37	Runoff/leaching from natural deposits; seawater influence
pH			8.30	Runoff/leaching from natural deposits; seawater influence

\* Aluminum was found at levels that exceed the secondary MCL of 200 ppb; the aluminum MCL was set to protect you against unpleasant aesthetic effects such as color, taste, and odor. The high aluminum levels are due to residue from the water treatment process. Since violating this MCL does not pose a risk to public health, the State allows the affected community to decide whether or not to treat to remove it.



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***Este informe contiene  
información muy importante  
sobre su agua de beber.  
Tradúzcalo ó hable con  
alguien que lo entienda bien.***

Table 5 (Continued) - Detection of Contaminants <u>without</u> a Drinking Water Standard	Cayucos WTP		Potential Source of Contamination
	Range	Average	
Sodium (ppm)		27	Runoff/leaching from natural deposits; seawater influence
Total Haloacetic Acids (ppb) (May 2000 through February 2001)	2.5-47.4	21.7	By-product of drinking water chlorination
Total Trihalomethanes (ppb)		39.9	By-product of drinking water chlorination

### Additional General Information on Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline, 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The USEPA and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline, 1-800-426-4791.

Additionally, the EPA Office of Ground Water and Drinking Water maintains a website with useful information on drinking water. The address is [www.epa.gov/safewater/](http://www.epa.gov/safewater/). Information can also be obtained by accessing the American Water Works Association's website at [www.awwa.org](http://www.awwa.org), the DHS website at [www.dhs.ca.gov/ps/ddwem/index.htm](http://www.dhs.ca.gov/ps/ddwem/index.htm), or by calling John Beaton, Water Quality Manager, at (805) 781-5111.

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#### 2001 Water Statistics

- **Cayucos Water Production**  
⇒ 406.32 Acre-feet
  - **Water Delivered**  
⇒ 400.54 Acre-feet
  - **Average Daily Demand**  
⇒ 1.1 Acre-feet
- 1 Acre-foot = 325,851 gallons